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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,223	04/22/2004	Thomas H. Whittaker	57679-0002	3222
24115	7590	10/03/2005	EXAMINER	
BUCKINGHAM, DOOLITTLE & BURROUGHS, LLP			EARLY, MICHAEL JACOBY	
50 S. MAIN STREET			ART UNIT	
AKRON, OH 44308			PAPER NUMBER	

3749

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,223

Applicant(s)

WHITTAKER, THOMAS H.

Examiner

Michael J. Early

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

[0001] All the content submitted with this application has been reviewed and it has been determined that neither domestic nor foreign priority have been claimed.

Information Disclosure Statement

[0002] The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

[0003] The examiner acknowledges that the Information Disclosure Statement for this application meets all of the requirements set forth and has been approved; however would like to note, for future purposes, the listing of references in the specification is not a proper method of disclosing information for the examiner to consider.

Oath/Declaration

[0004] The Oath/Declaration for this application meets all of the requirements set forth and has been approved.

Drawings

[0005] The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "36" or "38". Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

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even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

[0006] The Specification for this application has been reviewed and it has been determined that it meets all of the requirements set forth and has been approved.

Claim Rejections - 35 USC § 102

[0007] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[0008] Claims 1 – 2 and 4 – 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Stack (U.S. 2,090,336).

[0009] Stack discloses of a heating coil comprising of a housing (19 – outer plate and 11 – inner plate), which comprises of a longitudinal transversely concave bottom recess for saddling an engine exhaust system pipe, with a cavity located therein; a serpentine liquid wash tube (12 – groove) at least partially contained with said cavity, wherein said serpentine liquid wash tube has an inlet (13) and an outlet (14) (as seen in Figures 1 and 5 – 7). It is further disclosed that the heating coil comprises of a pair of external connector fittings (16, 17 – coupling members) wherein one of said pair of external connector fittings is attached to each of said inlet (13) and said outlet (14) of the serpentine liquid wash tube. In addition, it is further disclosed that the heating coil is

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attached to an engine exhaust system pipe by a band clamp (26 – clamp) (as seen in Figures 5 – 7).

[0010] In regard to claim 7, it is unpatentable over Stack as a result of design considerations.

[0011] Stack does not discuss the exact dimensions of the groove (i.e. diameter, length, etc.) enclosed within the heating coil. In the present application, as previously stated, the applicant points out that the diameter of the serpentine liquid wash tube is less than or equal to one inch; however, has not disclosed any evidence stating that having a wash tube of these values solves any stated problems or is for any particular purpose. Moreover, it appears that the heater would perform equally well with a wash tube whose diameter is of any commonly used size.

[0012] Therefore, it would have been obvious to provide a wash tube whose diameter is less than or equal to one inch, to ensure that an adequate amount of liquid wash was dispensed onto the windshield of a vehicle.

[0013] Accordingly, the use of a wash tube whose diameter is less than or equal to one inch as disclosed above is deemed to be a design consideration, which fails to patentably distinguish over the prior art of Stack.

[0014] In addition, the examiner would like to note, that the “liquid wash heater”, which is attached to an engine exhaust system to heat liquid wash to clean a windshield, disclosed is deemed as a statement of intended use and does not limit the type of prior art that can be searched (as seen in Claims 1 – 20).

Claim Rejections - 35 USC § 103

[0015] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[0016] The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

[0017] Claims 3 and 8 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stack in view of Breithaupt et al. (U.S. 5,509,606).

[0018] As previously stated, Stack discloses of a heating coil with possible exception to:

- a filler material at least partially encompassing said serpentine liquid wash tube within said housing;
- a curvilinear or nonlinear liquid wash tube at least partially contained within said cavity, wherein said curvilinear or nonlinear liquid wash tube has an inlet and an outlet, and a filler material at least partially encompassing said curvilinear or nonlinear liquid wash tube within said housing;
- a pair of external connector fittings wherein one of said pair of external connector fittings is attached to each of said inlet and said outlet of the curvilinear or nonlinear liquid wash tube;
- the diameter of said curvilinear or nonlinear liquid wash tube are less than or equal to one inch.

[0019] Attention is directed to the secondary reference, Breithaupt et al., which teach of an instant hot wash device; which is comprised of: a fluid reservoir (17), nozzles (13), a container (41), fluid (43), heater (27) and foam insulation (53); that is used to control the temperature and availability of windshield washing fluid over a complete spectrum of temperature and climate conditions (see col. 1, lines 7 – 13). In addition, it is further state that the wash device is capable of providing warm or hot

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washer fluid to a windshield washer system without waiting for a vehicle engine to generate heat (see col. 2, lines 5 – 10). Stack further discloses that the foam insulation (53) assists in maintaining the constant temperature of the fluid (43) within the container (41) (see col. 4, lines 5 – 10).

[0020] Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing heating coil of Stack by installing foam insulation within the apparatus' container, as taught by Breithaupt et al., to ensure that the location and temperature of the system's fluid was properly maintained throughout operation.

[0021] In regard to claims 13 and 17, they are unpatentable over Stack in view of Breithaupt et al. as a result of design considerations.

[0022] Neither Stack nor Breithaupt et al. discuss the exact dimensions of the groove or tubes (i.e. diameter, length, etc.) of their respective apparatuses. In the present application, as previously stated, the applicant points out that the diameter of the curvilinear or nonlinear liquid wash tube is less than or equal to one inch; however, has not disclosed any evidence stating that having a wash tube of these values solves any stated problems or is for any particular purpose. Moreover, it appears that the heater would perform equally well with a wash tube whose diameter is of any commonly used size.

[0023] Therefore, it would have been obvious to provide a wash tube whose diameter is less than or equal to one inch, to ensure that an adequate amount of liquid wash was dispensed onto the windshield of a vehicle.

[0024] Accordingly, the use of a wash tube whose diameter is less than or equal to one inch as disclosed above is deemed to be a design consideration, which fails to patentably distinguish over the prior art of Stack and Breithaupt et al.

[0025] Claims 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stack in view of Breithaupt et al. and in further view of Goulish et al. (U.S. 3,632,042).

[0026] As previously stated, Stack discloses of a heating coil with possible exception to:

- a flexible liquid wash tube at least partially contained within said housing, wherein said flexible liquid wash tube has an inlet and an outlet;
- the diameter of said flexible liquid wash tube are less than or equal to one inch.

[0027] Attention is directed to the secondary reference, Goulsh et al., which teach of a heated windshield washer system; which is comprised of: a pair of spaced nozzle means (22, 24), a container (26), a pump means (28), reservoir (26) and conduits (36, 40, 60); that has its washer fluid heated while in the reservoir and throughout its path of movement from the reservoir to the nozzle means (see col. 1, lines 9 – 14). In addition, it is further stated that heated coolant fluid from the engine is passed in heat exchange relationship with the reservoir for containing the washer fluid and in heat exchange relationship with the fluid throughout its path of movement from the reservoir to the nozzle (see col. 1, lines 14 – 20). Goulsh et al. further disclose that various portions of the conduits are flexible and allow for connection to fittings or connectors (see col. 3, lines 9 – 12, lines 24 – 26, 42 – 47).

[0028] Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing heating coil of Stack in view of Breithaupt et al. by installing flexible tubes within the apparatus, as taught by Goulsh et al., to provide tubes that can be more readily be adjusted, folded or moved in comparison to traditional metallic tubes.

[0029] In regard to claim 20, it is unpatentable over Stack in view of Breithaupt et al. and in further view of Goulsh et al. as a result of design considerations.

[0030] Neither Stack, Breithaupt et al. nor Goulsh et al. discuss the exact dimensions of the groove, tubes or conduits (i.e. diameter, length, etc.) of their respective apparatuses. In the present application, as previously stated, the applicant points out that the diameter of the curvilinear or nonlinear liquid wash tube is less than or equal to one inch; however, has not disclosed any evidence stating that having a wash tube of these values solves any stated problems or is for any particular purpose.

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Moreover, it appears that the heater would perform equally well with a wash tube whose diameter is of any commonly used size.

[0031] Therefore, it would have been obvious to provide a wash tube whose diameter is less than or equal to one inch, to ensure that an adequate amount of liquid wash was dispensed onto the windshield of a vehicle.

[0032] Accordingly, the use of a wash tube whose diameter is less than or equal to one inch as disclosed above is deemed to be a design consideration, which fails to patentably distinguish over the prior art of Stack and Breithaupt et al and Goulish et al.

Conclusion


[0033] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

[0034] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

[0035] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJE
9/27/05

Michael J. Early
Patent Examiner
Art Unit 3749


MONICA S. CARTER
PRIMARY EXAMINER

